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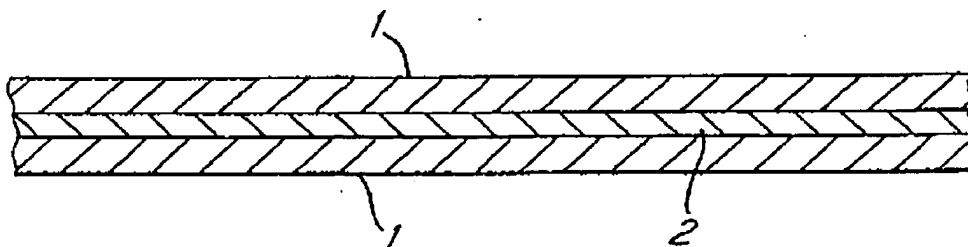
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(54) Sheet material

(57) To achieve improved opacity paper sheet for print or typing comprises a laminate of two outer paper sheets (1) with an opaque interliner (2). The interliner may be of plastics and the laminate is bonded together by heat sealing or adhesives.

The thickness of the layers must be such that the laminate is sufficiently flexible to pass through a printing machine.

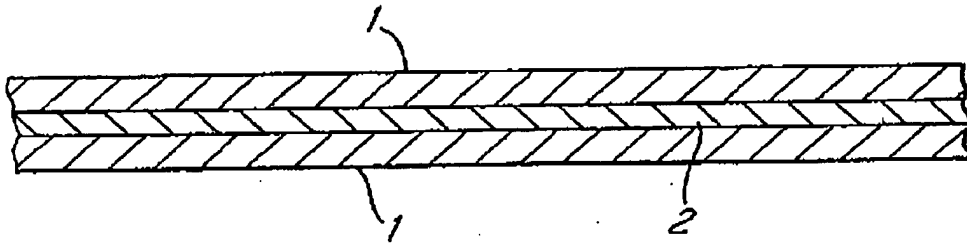


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SPECIFICATION

Sheet material

- 5 This invention relates to sheet material which is opaque for the purposes for example, of receiving print or typescript or for wrapping light sensitive articles such as unexposed photographic film or some foodstuffs.
- 10 In accordance with the invention, sheet material comprises a three-layer laminate, the outer layers of the laminate being made of paper, and the middle layer of which is opaque.
- The paper of the outer layers is preferably of a 15 gauge between 30 and 200 grams per square metre. Each of the outer layers may be white or coloured, and, if required, the two layers may be of different colours.
- Among the materials suitable for the middle layer 20 are polythene, vapour coated polypropylene, and a ferric oxide or magnetic oxide composition. To achieve maximum opacity, the inter-liner is coloured black, but other colours may be employed.
- The three layers are bonded together by a suitable 25 adhesive, or by heat sealing if the interliner is of a thermoplastics material. Sheet material in which a ferric oxide composite is present in the middle layer has been found to be capable of retaining magnetic images similarly to recording tape.
- 30 Sheet material in accordance with the invention is capable of providing a degree of opacity greater than that found in conventional papers with the result that printing on either exterior surface is not apparent on the reverse surface even when the material is held 35 up to strong light. In addition the two exterior surfaces can be differently coloured. Furthermore the material can be employed as a protective cover for materials which are sensitive to or adversely affected by light, e.g. photosensitive materials and 40 some foodstuffs.
- The accompanying drawings shows a diagrammatic cross section of an embodiment of the invention. The sheet material shown in the drawing comprises two outer layers 1 of paper separated by an 45 interliner 2 of black polythene. The paper layers are bonded to the interliner by heat sealing.

CLAIMS

- 50 1. Sheet material comprising a three-layer laminate, the outer layers of the laminate being made of paper, and the middle layer of which is opaque.
2. Sheet material according to claim 1 in which the outer layers each are of a gauge between 60 and 55 200 grams per square metre.
3. Sheet material according to claims 1 or 2 wherein the outer layers are differently coloured.
4. Sheet material according to any of claims 1-3 wherein the middle layer is polythene or vapour 60 coated polypropylene.
5. Sheet material according to any of claims 1-4 wherein the middle layer is coloured black.
6. Sheet material according to any of claims 1-3 wherein the middle layer contains a ferric oxide of

7. Sheet material according to any of claims 1-6 wherein the layers are bonded together by adhesive between their respective facing surfaces.

8. Sheet material according to any one of the 70 preceding claims wherein the middle layer is thermoplastic and the layers are bonded together by heat sealing.

9. Sheet material for receiving print or typescript 75 constructed and arranged substantially as hereinbefore described and shown in the accompanying drawing.

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 TI - MAGNETIC RECORDING PAPER
 IN - TAKAMI MASAOKI; TOYAMA KOJI
 PA - MITSUBISHI PAPER MILLS LTD
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TI - Magnetic recording paper with good printability - has coating layer formed using compsn. contg. white pigment, coloured pigment and binder e.g. PVA
 PR - JP19880000540 19880104
 PN - JP1176325 A 19890712 DW198934 005pp
 PA - (MITY) MITSUBISHI PAPER MILLS LTD
 IC - G11B5/74
 AB - J01176325 Recording paper consists of a base paper, a magnetic recording layer formed on one side of the base paper, and a coating formed on the magnetic recording layer and made from the aq. paint of that main ingredients are white pigment having at least 1.58 refractive index, colour pigment having a desired colour and binder.
 - Pref. white pigment is e.g. TiO₂, calcined clay, ZnO, BaSO₄, MgO, ZrO₂, etc. The adhesive is e.g. PVA, starch, a starch deriv., methoxy cellulose, etc.
 - USE/ADVANTAGE - The white pigment has high opacifying properties, so the magnetic recording layer may be coloured in any colour and have good printability. The magnetic paper is used for e.g. rail tickets, commuting tickets, prepaid cards, parking tickets, tickets of a toll express way, etc.
 OPD - 1988-01-04
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 IN - TAKAMI MASAOKI; others: 01
 PA - MITSUBISHI PAPER MILLS LTD
 TI - MAGNETIC RECORDING PAPER
 AB - PURPOSE: To shield a magnetic recording layer with an arbitrary color, to attain a printing to a magnetic recording surface and to enlarge information quantity by providing a pigment coating layer, which is composed of the white pigment of a ≥ 1.58 refractive index, a colored pigment and adhesive agent, on a magnetic recording layer.
 - CONSTITUTION: A magnetic recording paper has the magnetic recording layer, which has magnetic powder and the adhesive agent as a main component, on the side surface of an original paper and a water pigment coating layer is provided on the magnetic recording layer. In such a case, the main component of the water pigment coating layer is composed of the white pigment of the ≥ 1.58 refractive index, the colored pigment and adhesive agent. As the original paper, the high quality paper of basis weight 40-300g/m² and a converting paper, etc., can be used, however, it is not especially limited. Thus, the lowering of the effective magnetic characteristic of the magnetic recording layer is suppressed as much as possible and the hue of the magnetic powder itself is completely shielded with the arbitrary color. Then, the magnetic recording paper can be obtained to have enough printing aptitude in the magnetic recording surface.

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